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ABSTRACT

This social psychological laboratory activity permits the systematic observation of spontaneous human behavior as simulated on television and provides one way to effectively demonstrate and compare time sampling, event sampling, and trait rating techniques. The preparation involves videotaping a popular television show that depicts observable interpersonal behaviors. The entire lab exercise involves a lecture, the lab activity, and class discussion. A lecture about the guidelines, advantages, disadvantages, and data analysis of structured observational techniques is given. The class "walks through" the preparation, development, and completion of each technique. The class is then divided into three groups, each of which is responsible for the development of all components of one structured technique . The class reconvenes to observe the taped program with each student independently recording samples of behavior, using the method and data sheets constructed by their subgroup. Group reliability coefficients are calculated. The class then discusses the relative advantages/disadvantages of each method, the importance of precise operational definitions on the precision of inter-rater agreement, and the defining characteristics of scientific observation. This is an excellent activity for an in-class comparison of different structured observational techniques. Students have responded well to it and many reported a better comprehension of the methods. (Author/BS)

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A Multimedia Demonstration and Comparison of Three Structured Observational Methods

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This paper was presented as part of a symposium on the teaching of psychology at the 1984 meeting of the American Psychological Association, Toronto, Canada.

Abstract

The observation of human behavior plays an essential role in many domains of psychology. However, the numerous approaches to the structured observation of spontaneous behavior are often difficult to demonstrate formally in class. The following social psychological laboratory activity permits the systematic observation of spontaneous human behavior as simulated on television and provides one way to effectively demonstrate and compare time sampling, event sampling, and trait rating techniques. The preparation involves videotaping a popular television show that depicts observable interpersonal behaviors. The entire lab exercise involves: (1) Lecture: about the guidelines, advantages, disadvantages, and data analysis of structured observational techniques is given. The class "walks through" the preparation, development, and completion of each technique; (2) Lab Activity: the class is divided into three groups, each of which is responsible for the development of all components of one structured technique. The class reconvenes to observe the taped program with each student independently recording samples of behavior, using the method and data sheets constructed by their subgroup. Group reliability coefficients are calculated and ; (3) Discussion: the class discussion includes; the relative advantages/disadvantages of each method; the importance of precise operational definitions on the precision of inter-rater agreement; and the defining characteristics of scientific observation. This is an excellent activity for an in-class comparison of different structured observational techniques. Students have responded well to it and many reported a better comprehension of the methods.

A Multimedia Demonstration and Comparison of
Three Structured Observational Methods

The observation of human behavior plays a central role in many domains of psychology, particularly social psychology, child psychology, and group processes. To date, several observational techniques are available, all of which have been developed with the aim of scientifically describing human behavior.

These techniques can be classified into two general types, unstructured (narrative) methods and structured (checklist) methods. The former approaches involve using narrative types of data to "reproduce behavioral events in much the same fashion and sequence as their original occurrence" (Brandt, 1972, p. 80). In contrast, the latter approaches entail deliberately selecting and defining specific behaviors prior to the observation process, and developing a format on which to record the observations. Since the early twentieth century, the structured methods have been used with increasing frequency to study social behaviors.

Wright (1960), a leading proponent and authority of direct observational research, identified time sampling, event sampling, and trait ratings as three of the most frequently used structured approaches for obtaining observational data. These basic observational "tools" are often taught to college and graduate school students in lecture format. Although many teachers prefer an in-class demonstration of these techniques, there are several

difficulties inherent in these techniques that block an effective in-class presentation. First, it is widely known that spontaneously occurring behavior is influenced by the process of being observed. Decreased negative behaviors, increased desired behaviors, and a reduction in overall activity are illustrative of specific behavioral changes resulting from the awareness of being observed (c.f. in Sellitz, Wrightsman & Cook, 1981). To facilitate the unobtrusive observation of behavior, some teaching institutions have installed two-way mirrors in adjoining clinical laboratories or developmental pre-school activity centers. The utility of these labs, therefore, is often confined to the observation of children or of clinical interviews. Even with these aids, studying spontaneous adult social behavior is quite difficult. A second consequence of observer interference is that th. conclusions to be drawn from the observed behaviors are limited to the specific situation. Thirdly, unobtrusive observation raises many important and complex ethical concerns that connot be fully addressed, such as issues of informed consent, veto power over the use of obtained information, and invasion of privacy.

The following social psychological laboratory activity permits the systematic observation of spontaneous human behavior as simulated on television. This exercise provides one way to effectively demonstrate and compare time sampling, event sampling, and trait rating techniques without incurring the problems described

above. Furthermore, it is an excellent illustration of the scientific approach to studying behavior, as the students' observations (1) serve a formulated research purpose, (2) are planned deliberately, (3) are recorded systematically, and (4) are subjected to checks and controls on reliability and validity.

Method

Equipment and Preparation

The only equipment needed is either a video cassette recorder or a facility for closed circuit television from which to air a pre-recorded television show. Virtually all teaching institutions have either or both of these capabilities in the audio-visual department. The only initial laboratory preparation involves videotaping a popular television show that depicts observable interpersonal behaviors. A wide variety of shows may be used, with the choice depending mainly upon the nature of the questions being asked. The Love Boat, for example, a television show that depicts aspects of several types of relationships that differ in level of intimacy, was used with social psychology students whose formulated research purpose was studying interpersonal attraction and love. However, when this technique was employed with students enrolled in a research methods course in which the questions involved a broader array of behaviors and emotions, the soap opera entitled All My Children was chosen. Again, as this decision will be determined by the behavioral domain being examined (i.e., liking, loving, aggression, prejudice, etc.) the

approach permits flexibility in the selection of a television show.

Procedure

The entire lab activity involves three steps: (1) a lecture about observational methods; (2) an exercise demonstrating the use of time sampling, event sampling, and trait ratings; and (3) a class discussion comparing the three methods. It is more effective as a formal two hour (social psychological)lab activity, but can be condensed into one class period.

(1) Lecture.

a. The lab activity begins with a brief introduction to direct observation as a research method. Specific points covered include the role and importance of observation in research and teaching; the main distinguishing features among naturalistic observation, experimental manipulation, and self-report methods; and the difference between nonstructured and structured observational strategies.

b. The structured observational techniques of time sampling, event sampling, and trait ratings become the specific focus of the lecture. Each method is described in detail and the following similarities among the three methods are presented: (1) each focuses on specific behaviors or constellations of behaviors, (2) each identifies behavioral categories in advance, (3) each method relies heavily on an unambiguous operational definition of the variable(s) being measured, and (4) each requires preconstructed

recording formats.

c. The class "walks through" the preparation, development and completion of each technique (i.e., formulating research questions, defining target behaviors, forming operational definitions, and constructing recording formats).

(2) Lab Activity

a. The class is divided into three groups, each of which is responsible for the development of all components of one strategy. The students make all pertinent decisions, including the following: the purpose of the observation; the type of information to record; how the variables will be operationalized; whether to include verbal and/or nonverbal behaviors; constructing an appropriate recording format; (for time sampling) deciding the length, number, and spacing of intervals; and (for trait ratings) the type of rating scale to use.

b. The class reconvenes for approximately one-half hour to observe the taped program. Each student independently records samples of behavior using the method and data sheets constructed by his/her subgroup.

c. Inter-rater reliability coefficients are computed among all subgroup members. Each group is instructed to identify shortcomings in their use of the strategy, improvements that would overcome these problems, and the relative

advantages and disadvantages of the method they used.

(3) Discussion

a. The author has found that a beneficial way to begin the discussion is by comparing the obtained reliability coefficients among the three methods. The differences in level of inter-observer agreement reveal some of the strengths and weaknesses associated with each technique. Specifically, on both occasions in which this lab activity was conducted the determined reliability coefficients were found to be highest for time sampling, next highest for event event sampling, and lowest for trait ratings. The instructor noted that this pattern is consistent with each stategy for collecting observational data. For instance, rating scale reliability coefficients are usually lower than the other two techniques as this strategy demands a judgment from the rater, and therefore, is more subjective. Consequently, rater errors and biases occur including the halo effect, errors of leniency, and errors of central tendency. In contrast, time sampling reliability coefficients are typically higher than trait rating or event sampling methods. Consistent with this, the observer must focus on easily observable, concrete, and pre-selected behaviors.

b. Additional discussion topics covered are: specific uses of each method; major advantages and disadvantages; possible data analysis procedures; the importance of precise

operational definitions, and its impact on the precision of inter-rater agreement; and the defining characteristics of scientific observation.

Students' Evaluation of Lab Activity

This technique was initially used as a laboratory activity in a social psychology course. Upon completion, several students informally praised its instructional utility. The technique has been subsequently refined and used both in another section of social psychology and a research methods course. To evaluate its effectiveness, a survey was distributed to all participants at the end of the exercise (Total N = 15). Results are summarized below. Each question is followed by the mean and the standard deviation (in parentheses).

1. How interesting did you find this activity? 3.47 (1.60).

   1 = Very Uninteresting to 5 = Very Interesting

2. How well did this activity facilitate your understanding of the different structured observational methods? 4.33 (.82).

   1 = It was confusing to 5 = Very Helpful

3. Overall, how would you compare this activity to other psychological lab activities? 3.67 (.72).

   1 = Inferior to 5 = Superior

4. Would you recommend the use of this lab in future offerings of this course? 4.47 (1.06).

   1 = No, absolutely not to 5 = Yes, most definitely

As can be seen, students generally agreed that the objectives of this exercise were largely met. Answers to questions 2 and 3

indicate that the activity facilitated an understanding of the structured techniques, and was a better teaching aid than other psychological labs to which they had been exposed. Responses to question 1 revealed wide variations in interest levels. This appeared to be due to the specific television show viewed, rather than to the actual lab activity involved. This conclusion is supported by the students wide recommendation to use this activity in future offerings of the course. Overall, the students responded well to it and many reported a better comprehension of the methods. The following student comments are illustrative of the positive response this activity received: "This lab really made me think and as a result helped stress observational methods and how to actually set up and conduct an observational experiment," "Very good lesson plan," and "...fun and very interesting."

Summary and Conclusions

In the judgment of the author this is a highly educational and innovative teaching tool. The major strength of the lab is that it permits an in-class demonstration and comparison of three major structured observational techniques. However, the utility of this exercise is far more comprehensive. It illustrates other important facets of psychological research such as the scientific approach to gathering observational data, the importance of precise operational definitions of inter-rater agreement, and the calculation of reliability coefficients.